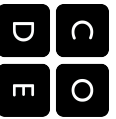


# Standards Alignment

Code.org K-5 Curriculum Course 3

## 1. Computational Thinking (Unplugged)

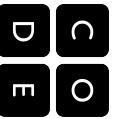
<b>ISTE</b>	1a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 2.d - Contribute to project teams to produce original works or solve problems. 4.b - Plan and manage activities to develop a solution or complete a project. 4.d - Use multiple processes and diverse perspectives to explore alternative solutions.
<b>CSTA</b>	CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercises. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.
<b>NGSS</b>	3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.  3.OA:3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.



## K–5 Curriculum Course 3

## Standards Alignment

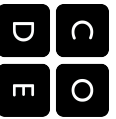
	<p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships</p>
<b>2. Maze</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to</p>



### K–5 Curriculum Course 3

### Standards Alignment

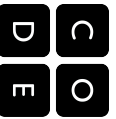
	meet the criteria and constraints of the problem.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Use appropriate tools strategically. 4. Attend to precision. 5. Look for and make use of structure. 6. Look for and express regularity in repeated reasoning. 7. OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. 8. NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm. 9. NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.
<b>CC ELA</b>	L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships
<b>3. Artist</b>	
<b>ISTE</b>	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
<b>CSTA</b>	CT.L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems. CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.



## K–5 Curriculum Course 3

## Standards Alignment

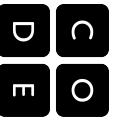
	CT.L.2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L.2-06. Describe and analyze a sequence of instructions being followed. CT.L.2-08. Use visual representations of problem states, structures, and data. CT.L.2-12. Use abstraction to decompose a problem into sub-problems.
<b>NGSS</b>	3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. 3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. 4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm. 4.MD.A.3 - Apply the area and perimeter formulas for rectangles in real world and mathematical problems. 4.MD.C.5 - Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. 4.MD.C.7 - Recognize angle measure as additive. 4.G.A.1 - Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. 4.G.A.2 - Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. 4.G.A.3 -Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching part. 5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm. 5.G.A.2 - Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
<b>CC ELA</b>	L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.



### K–5 Curriculum Course 3

### Standards Alignment

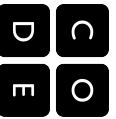
	<p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships</p>
<b>4. Functional Suncatchers (Unplugged)</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08 - Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol>
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>
	<p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with</p>



## K–5 Curriculum Course 3

## Standards Alignment

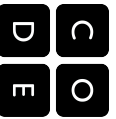
	<p>diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships</p>
<b>5. Artist - Functions</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT. L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices:</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>3. Construct viable arguments and critique the reasoning of others.</li><li>4. Model with mathematics.</li></ol>



## K–5 Curriculum Course 3

## Standards Alignment

	<p>5. Use appropriate tools strategically.</p> <p>6. Attend to precision.</p> <p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>4.MD.A.3 - Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p> <p>4.MD.C.5 - Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.</p> <p>4.MD.C.7 - Recognize angle measure as additive.</p> <p>4.G.A.1 - Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.</p> <p>4.G.A.2 - Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</p> <p>4.G.A.3 - Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching part.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p> <p>5.G.A.2 - Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>6. Bee - Functions</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p>

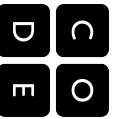


## K–5 Curriculum Course 3

## Standards Alignment

	<p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT. L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06 .Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>4. Model with mathematics.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p>

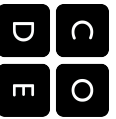




## K–5 Curriculum Course 3

## Standards Alignment

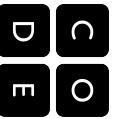
	<p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>7. Bee - Conditionals</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT. L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGGS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>4. Model with mathematics</li><li>5. Use appropriate tools strategically</li><li>6. Attend to precision.</li></ol>



### K–5 Curriculum Course 3

### Standards Alignment

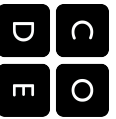
	<p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>8. Maze - Conditionals</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p>



## K–5 Curriculum Course 3

## Standards Alignment

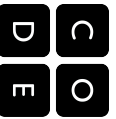
	CT.L.2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions. CT.L.3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
<b>NGSS</b>	3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities. 4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm. 5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.
<b>CC ELA</b>	L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.
<b>9. Songwriting (Unplugged)</b>	
<b>ISTE</b>	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 2.d - Contribute to project teams to produce original works or solve problems. 4.b - Plan and manage activities to develop a solution or complete a project. 4.d - Use multiple processes and diverse perspectives to explore alternative solutions.
<b>CSTA</b>	CPP.L1:6.05. Construct a program as a set of step-by-step instructions to be acted out.



## K–5 Curriculum Course 3

## Standards Alignment

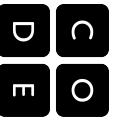
	<p>CTL.2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CTL.2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CTL.2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CTL.2-08. Use visual representations of problem states, structures, and data.</p> <p>CTL.2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CTL.3A-3. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol>
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>10. Dice Race (Unplugged)</b>	
<b>ISTE</b>	<p>1 a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p>



### K-5 Curriculum Course 3

### Standards Alignment

	<p>2.d - Contribute to project teams to produce original works or solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p>
<b>CSTA</b>	<p>CDI:6-06. Recognize that computers model intelligent behavior.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercises.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CTL2-12. Use abstraction to decompose a problem into sub-problems.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p> <p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>4. Model with mathematics.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol>
<b>CC Math</b>	<p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>

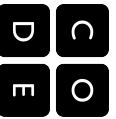


## K–5 Curriculum Course 3

## Standards Alignment

### 11. Artist - Nested Loops

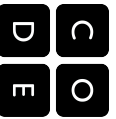
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2:2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices.</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>4. Model with mathematics.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>3.G.A.2 - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</p>



## K–5 Curriculum Course 3

## Standards Alignment

	<p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>4.MD.A.3 - Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p> <p>4.MD.C.5 - Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.</p> <p>4.MD.C.7 - Recognize angle measure as additive.</p> <p>4.G.A.1 - Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.</p> <p>4.G.A.2 - Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</p> <p>4.G.A.3 - Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching part.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p> <p>5.G.A.2 - Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>12. Farmer - While Loops</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p>



## K–5 Curriculum Course 3

## Standards Alignment

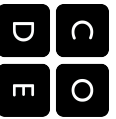
	<p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>3. Model with mathematics.</li><li>4. Model with mathematics.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>





**13. Bee - Nested Loops**

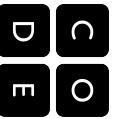
<b>ISTE</b>	1.a - Apply existing knowledge to generate new ideas, products, or processes. 1.c - Use models and simulation to explore complex systems and issues. 4.b - Plan and manage activities to develop a solution or complete a project. 6.a - Understand and use technology systems. 6.c - Troubleshoot systems and applications. 6.d - Transfer current knowledge to learning of new technologies.
<b>CSTA</b>	CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology. CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems. CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions. CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out. CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
<b>NGSS</b>	3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>CC Math</b>	<b>Mathematical Practices</b> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.  3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.



## K–5 Curriculum Course 3

## Standards Alignment

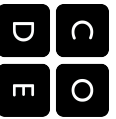
	<p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>14. Bee Debugging</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT. L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2:2-14 - Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CT.L3A.03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p>



## K–5 Curriculum Course 3

## Standards Alignment

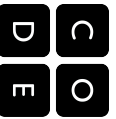
	<ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>4. Model with mathematics.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p>
<b>15. Bounce</b>	
<b>ISTE</b>	<p>1.a - Apply existing knowledge to generate new ideas, products, or processes.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSTA</b>	<p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CT.L1:3-01. Use technology resources (e.g. puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p>



## K–5 Curriculum Course 3

## Standards Alignment

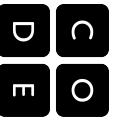
	CPP.L1:6-06. Implement problem solutions using a block-based visual programming language. CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions. CT.L2-06. Describe and analyze a sequence of instructions being followed. CT.L2-08. Use visual representations of problem states, structures, and data. CT.L2-12. Use abstraction to decompose a problem into sub-problems. CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions. CT.L3A.03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.
<b>NGSS</b>	3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities 4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm. 5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.
<b>CC ELA</b>	L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.
<b>16. Play Lab – Create a Story</b>	
<b>ISTE</b>	1.a - Apply existing knowledge to generate new ideas, products, or processes.



## K–5 Curriculum Course 3

## Standards Alignment

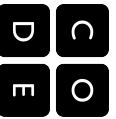
	<p>1.b - Create original works as a means of personal or group expression.</p> <p>2.a - Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.</p> <p>2.b - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSA</b>	<p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:3-02. Use writing tools, digital cameras and drawing tools to illustrate thoughts, ideas, and stories in a step by step manner.</p> <p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CL.L1:6-01. Use productivity technology tools for individual and collaborative writing, communication, and publishing activities.</p> <p>CPP.L1:3-03. Create developmentally appropriate multimedia products with support from teachers, family, or student partners.</p> <p>CPP.L1:6-03. Use technology tools for individual and collaborative writing, communication and publishing activities.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CPP.L2-08. Demonstrate dispositions amenable to open-ended problem solving and programming.</p> <p>CT.L3A.03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <p>1. Make sense of problems and persevere in solving them.</p>



### K–5 Curriculum Course 3

### Standards Alignment

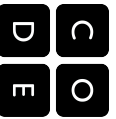
	<p>2. Reason abstractly and quantitatively.</p> <p>4. Model with mathematics.</p> <p>5. Use appropriate tools strategically.</p> <p>6. Attend to precision.</p> <p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>W.3.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.3.6 - With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>W.4.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.4.6 - With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p> <p>W.5.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.5.6 - With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.</p>
<b>17. Play Lab - Create a Game</b>	
<b>ISTE</b>	1.a - Apply existing knowledge to generate new ideas, products, or processes.



### K–5 Curriculum Course 3

### Standards Alignment

	<p>1.b - Create original works as a means of personal or group expression.</p> <p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.a - Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.</p> <p>2.b - Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>4.d - Use multiple processes and diverse perspectives to explore alternative solutions.</p> <p>6.a - Understand and use technology systems.</p> <p>6.c - Troubleshoot systems and applications.</p> <p>6.d - Transfer current knowledge to learning of new technologies.</p>
<b>CSA</b>	<p>CT.L1:3-01. Use technology resources (e.g., puzzles, logical thinking programs) to solve age appropriate problems.</p> <p>CT.L1:3-02. Use writing tools, digital cameras and drawing tools to illustrate thoughts, ideas, and stories in a step by step manner.</p> <p>CL.L1:3-02. Work cooperatively and collaboratively with peers teachers, and others using technology.</p> <p>CL.L1:6-01. Use productivity technology tools for individual and collaborative writing, communication, and publishing activities.</p> <p>CPP.L1:3-03. Create developmentally appropriate multimedia products with support from teachers, family, or student partners.</p> <p>CPP.L1:6-03. Use technology tools for individual and collaborative writing, communication and publishing activities.</p> <p>CPP.L1:6-05. Construct a program as a set of step-by-step instructions to be acted out.</p> <p>CPP.L1:6-06. Implement problem solutions using a block-based visual programming language.</p> <p>CT.L2-01. Use the basic steps in algorithmic problem solving to design solutions.</p> <p>CT.L2-06. Describe and analyze a sequence of instructions being followed.</p> <p>CT.L2-07. Represent data in a variety of ways: text, sounds, pictures, numbers.</p> <p>CT.L2-08. Use visual representations of problem states, structures, and data.</p> <p>CT.L2-12. Use abstraction to decompose a problem into sub-problems.</p> <p>CT.L2-14. Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.</p> <p>CPP.L2-08. Demonstrate dispositions amenable to open-ended problem solving and programming.</p> <p>CT.L3A-03. Explain how sequence, selection, iteration, and recursion are building blocks of algorithms.</p>
<b>NGSS</b>	<p>3-5-ETS1-2 - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
<b>CC Math</b>	<p>Mathematical Practices</p> <p>1. Make sense of problems and persevere in solving them.</p>

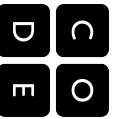


### K–5 Curriculum Course 3

### Standards Alignment

	<p>2. Reason abstractly and quantitatively.</p> <p>4. Model with mathematics.</p> <p>5. Use appropriate tools strategically.</p> <p>6. Attend to precision.</p> <p>7. Look for and make use of structure.</p> <p>8. Look for and express regularity in repeated reasoning.</p> <p>3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities</p> <p>4.NBT.B.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
<b>CC ELA</b>	<p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>W.3.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.3.6 - With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>W.4.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.4.6 - With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships.</p> <p>W.5.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <p>W.5.6 - With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.</p>
<b>18. Internet (Unplugged)</b>	
<b>ISTE</b>	5.a - Advocate and practice safe, legal, and responsible use of information and technology.

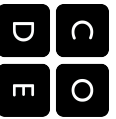




## K–5 Curriculum Course 3

## Standards Alignment

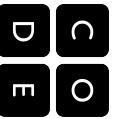
	<p>5.b - Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</p> <p>6.a - Understand and use technology systems.</p>
<b>CSTA</b>	<p>CI.L1:3-01. Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software.</p> <p>CPP.L2-06. Demonstrate good practices in personal information security: using passwords, encryption, secure transactions.</p> <p>CD.L1:6-04. Identify that information is coming to the computer from many sources over a network.</p> <p>CD.L2-06. Describe the major components and functions of computer systems and networks.</p>
<b>NGSS</b>	NA
<b>CC Math</b>	NA
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships</p>
<b>19. Crowdsourcing (Unplugged)</b>	
<b>ISTE</b>	<p>1.c - Use models and simulation to explore complex systems and issues.</p> <p>2.d - Contribute to project teams to solve problems.</p> <p>4.b - Plan and manage activities to develop a solution or complete a project.</p> <p>6.a - Understand and use technology systems.</p>
<b>CSTA</b>	<p>CPP.L1:3-04. Construct a set of statements to be acted out to accomplish a simple task.</p> <p>CT.L1:3-03. Understand how to arrange information into useful order without using a computer.</p> <p>CT.L1:6-01. Understand and use the basic steps in algorithmic problem-solving.</p> <p>CT.L1:6-02. Develop a simple understanding of an algorithm using computer-free exercises.</p>



## K–5 Curriculum Course 3

## Standards Alignment

	CT.L.1:6-05 Make a list of sub-problems to consider while addressing a larger problem. CL.L1:6-03. Identify ways that teamwork and collaboration can support problem solving and innovation. CT.L2-06. Describe and analyze a sequence of instructions being followed.
<b>NGSS</b>	K-2-ETS1-1 - Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. CT.L2-06. Describe and analyze a sequence of instructions being followed.
<b>CC Math</b>	Mathematical Practices 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.
<b>CC ELA</b>	SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships
<b>20. Digital Citizenship (Unplugged)</b>	
<b>ISTE</b>	1.c - Use models and simulations to explore complex systems and issues. 2.d - Contribute to project teams to solve problems. 5.a - Advocate and practice safe, legal, and responsible use of information and technology. 5.b - Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity. 5.d. - Exhibit leadership for digital citizenship. . 6.a - Understand and use technology systems.



### K–5 Curriculum Course 3

### Standards Alignment

<b>CSTA</b>	<p>C.I.1:3-01. Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software.</p> <p>C.I.1:6-01. Discuss basic issues related to responsible use of technology and information, and the consequences of inappropriate use.</p> <p>C.I.1:6-02. Identify the impact of technology (e.g. social networking, cyber bullying, mobile computing and communication, web technologies, cyber security, and virtualization) on personal life and society.</p> <p>C.I.1:6-04. Understand ethical issues that relate to computers and networks (e.g., equity of access, security, privacy, copyright, and intellectual property).</p> <p>C.I.2-01. Exhibit legal and ethical behaviors when using information and technology and discuss the consequences of misuse.</p> <p>C.I.2-05. Describe ethical issues that relate to computers and networks (e.g., security, privacy, ownership, and information sharing).</p> <p>CPP.L2-06. Demonstrate good practices in personal information security: using passwords, encryption, secure transactions.</p>
<b>NGSS</b>	NA
<b>CC Math</b>	NA
<b>CC ELA</b>	<p>SL.3.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p>L.3.6 - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p>SL.4.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.4.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic.</p> <p>SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>L.5.6 - Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships</p>